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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/879,451

06/12/2001

Dimitrios Papadimitriou

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EXAMINER

DANIEL JR, WILLIE J

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 01/16/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,451

Applicant(s)

PAPADIMITRIOU ET AL.

Examiner

Willie J. Daniel, Jr.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12 June 2001 is in compliance with the provisions of 37 CFR 1.97 and is being considered by the examiner.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Two of the inventors failed to provide a signature and date.

Drawings

3. The drawings are objected to because of **Form PTO-948** sections **3, 5, 10, and 12**. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: **Fig. 2** has **"(2)"**, **"(5)"**, **"MGW2, CIC150(3)"**, **"MGW2, CIC150(4)"** which are not mentioned in specification. A proposed drawing correction, corrected drawings, or amendment to the

Art Unit: 2686

specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: **Fig. 3** has numerous references that are not mentioned in specification. Examiner suggests that applicant verify that each reference is in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The abstract of the disclosure is objected to because "E:\\" file link on pg. 16. Correction is required. See MPEP § 608.01(b).
7. The disclosure is objected to because of the following informalities: Examiner interprets "**ref. 10**" on pg. 7, [0022] line 8 to be "**ref. 20**".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 recites the limitation "**data structure**" in **Claim 6**. There is insufficient antecedent basis for this limitation in the claim.

Regarding **Claim 6**, the claim specifies dependence on "**Claim 4**" which examiner interprets to be "**Claim 5**"

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by **Ho et al. (US 6,091,953)**, which hereinafter Ho will be used.

Regarding **Claim 13**, Ho discloses a media gateway selection node (404) for use in a telecommunications network (100) for providing non-dedicated circuit pathways between access nodes (110, 112) and switches (104, 106, 108) of a switch pool in the network, comprising:

means for storing and accessing data concerning media gateways, access nodes, switches, and circuit pathways of the network (100) (see col. 6, lines 19-22; col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; col. 10, lines 30-37; Figs. 2, 4, 5A-B, 6, 7, 8), where the data of the addressing table defines the connections and routes used between the network;

means for defining relationships among the media gateways, access nodes, switches, and circuit pathways (see col. 6, lines 19-22; col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; col. 10, lines 30-37; Figs. 2, 4, 5A-B, 6, 7, 8), where the data of the addressing table defines the connections and routes used between the network; and

means for reserving and releasing circuit pathways as needed for use between individual switches and individual access nodes (see col. 6, lines 19-22; col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; col. 10, lines 30-37; Figs. 2, 4, 5A-B, 6, 7, 8), where the data of the addressing table defines the connections and routes used within the network and for establishing and releasing connections.

Regarding **Claim 14**, Ho discloses a media gateway selection node (404) according to claim 13 wherein the data concerning media gateways, access nodes, switches, and circuit pathways, further comprises load carrying capacity (see col. 13, lines 29; col. 16, line 53 - col. 17, line 47; Figs. 4, 6, 11, 12).

Regarding **Claim 15**, Ho discloses a media gateway selection node (404) according to claim 13 wherein the means for defining relationships among the media gateways, access nodes, switches, and circuit pathways is adapted to perform dynamically (see col. 6, lines 19-22; col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; col. 10, lines 30-37; col. 13, lines 29; col. 16, line 53 - col. 17, line 47; Figs. 2, 4, 5A-B, 6, 11, 12), where the data of the addressing table defines the connections and routes used between the network.

Regarding **Claim 16**, Ho discloses a media gateway selection node (404) according to claim 13 wherein the means for reserving and releasing circuit pathways as needed for use between individual switches and individual access nodes is adapted to perform dynamically (see col. 6, lines 19-22; col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; col. 10, lines 30-37; col. 13, lines 29; col. 16, line 53 - col. 17, line 47; Figs. 2, 4, 5A-B, 6, 7, 8, 11, 12), where the data of the addressing table defines the connections and routes used within the network in which the connections are established and released.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ho et al. (US 6,091,953)** (hereinafter Ho will be used) in view of **Stumpert (WO 01/13657)**.

Regarding **Claim 1**, Ho teaches of having a telecommunications network (100) providing non-dedicated circuit pathways between access nodes and switches in the network (Fig. 1) comprising:

a plurality of access nodes disposed about a service area of the telecommunications network (see col. 5, line 18-25; Fig. 1);

a switch pool adapted to communicate with the access nodes in order to provide access by a plurality of user terminals (136, 138, 140) to services of the telecommunications network (see col. 5, lines 18-31; Fig. 1), where the pool of switches are connected to user terminals through access nodes;

a gateway (102, 320, 321) providing one or more connections between the access nodes and the switch pool via a plurality of circuit pathways (see col. 5, line 18-25 col. 9, line 57- col. 10, line 8; Figs. 1, 3, 4, and 15), where the switch pool is connected to the access nodes via the gateway; and

a switch processing core (404) which reads on the claimed "gateway selection node" operably coupled to the gateways and the switch pool, the gateway selection node configured

to reserve and release circuit pathways as needed for use between switches of the switch pool and the access nodes (see col. 5, line 18-25; col. 10, lines 27-37; Figs. 18, 19, 20C). Ho fails to disclose having a network with at least two gateways. However, the examiner maintains that a network with at least two gateways was well known in the art, as taught by Stumpert.

In the same field of endeavor, Stumpert teaches of having a network with at least two Gateways (see pg. 1 (1st paragraph); pg. 20-21; Figs. 3, 6-12), in which at least two gateways are connected.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ho and Stumpert to have a network with at least two gateways.

The advantage of combining the teachings of Ho and Stumpert is to have a network to perform an optimal routing for the payload thereby using a minimum of resources.

Regarding **Claim 2**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 1), in addition Ho further teaches of a network (100) of claim 1 wherein the switches (104, 106, 108) comprise Mobile Switching Centers (MSCS) (see Figs. 1 and 2).

Regarding **Claim 3**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 1), in addition Ho further teaches the network of claim 1 wherein the access nodes (110, 112, 114, 116) comprise Base Station Controllers (BSCS) (see Fig. 1).

Regarding **Claim 4**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 1), in addition Ho further teaches the network of claim 1

Art Unit: 2686

wherein the access nodes comprise Radio Network Servers (RNSs) (see col. 6, lines 19-22; col. 10, lines 30-37; Figs. 2, 4, 5A, 5B, 6), where the dispatch switch (102) uses an addressing table of stored data that is periodically updated and used to route traffic in which a server would be inherent.

Regarding **Claim 5**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 1), in addition Ho further teaches the network of claim 1 wherein the gateway selection node (404) further comprises a data structure defining relationships among gateways, access nodes, and identity codes associated with the circuit pathways (see col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; Figs. 2, 4, 5A-B, 7, 8), where the data structure of the addressing table defines the connections and routes used between the network.

Regarding **Claim 6**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 5), in addition Ho further teaches the network of claim 5 wherein the data structure comprises a media gateway selection database (see col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 30-37; Figs. 2, 5A-B, 7, 8), where the addressing table is stored data for selecting and determining the route and connections between the components therefore a database is inherent.

Regarding **Claim 7**, Ho teaches of having identity associated with the paths and components of the path in the addressing table (see col. 7, lines 39-56; col. 9, lines 57-64; Figs. 2 and 7), where the signal path and connections are associated with identities in the addressing table. Ho fails to disclose the codes with Circuit Identity Codes (CICS).

However, the examiner maintains that the codes with Circuit Identity Codes (CICS) was well known in the art, as taught by Stumpert.

Stumpert further teaches having codes with circuit identity codes (CICs) (see pg. 11, 4th paragraph).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ho and Stumpert to have wherein the identity codes comprise Circuit Identity Codes (CICS).

The advantage of combining the teachings of Ho and Stumpert is to have different identifying CICs used for routing between different components of the network during call setup and control.

Regarding **Claim 8**, Ho teaches a method of providing non-dedicated circuit pathways between access nodes and switches in a telecommunications network having a gateway (102, 320, 321) (see Fig. 1, 3), the method comprising the steps of:

requesting a circuit pathway between a switch and a target access node (see col. 13, line 52 - col. 14, line 17; Fig. 7);

selecting a circuit pathway between the switch and target access node (see col. 13, line 52 - col. 14, line 17; Fig. 7);

allocating a circuit pathway between the switch and a selected gateway (see col. 13, line 52 - col. 14, line 17; Fig. 7);

allocating a circuit pathway between the selected gateway and target access node (see col. 13, line 52 - col. 14, line 17; Fig. 7); and

subsequently, de-allocating the circuit pathway between the switch and selected gateway (see col. 14, lines 39-57; Fig. 8); and

de-allocating the circuit pathway between the selected gateway and target access node (see col. 14, lines 39-57; col. 15, lines 7-18; Fig. 8). Ho fails to disclose having a network with a plurality of gateways. However, the examiner maintains that a network with a plurality of gateways was well known in the art, as taught by Stumpert.

In the same field of endeavor, Stumpert teaches of having a network with at least two Gateways (see pg. 1 (1st paragraph); pg. 20-21; Figs. 3, 6-12), in which at least two gateways are connected.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ho and Stumpert to have a network with at least two gateways.

The advantage of combining the teachings of Ho and Stumpert is to have a network to perform an optimal routing for the payload thereby using a minimum of resources.

Regarding **Claim 9**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 8), in addition Ho further teaches the method of claim 8 wherein the steps of selecting, allocating, and deallocating are performed dynamically (see col. 13, line 52 - col. 14, line 17; col. 14, lines 39-57; col. 15, lines 7-18; Figs. 7 and 8).

Regarding **Claim 10**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 9), in addition Ho further teaches the method of claim 8 further comprising the step of maintaining a media gateway selection node (404) for selecting, allocating, and de-allocating circuit pathways (see col. 13, line 52 - col. 14, line 17;

col. 14, lines 39-57; col. 15, lines 7-18; Figs. 1, 2, 7, and 8), where the pathways are selected, allocated, and de-allocated through the node which has to maintain an addressing table of pathways between the linked components of the network.

Regarding **Claim 11**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 10), in addition Ho further teaches the method of claim 10 further comprising the step of maintaining a switch pool comprising the switches of the telecommunications network, the switch pool operably connected to the media gateway selection node (404) (see Figs. 1 and 4), where the switch pool has connectivity to the node.

Regarding **Claim 12**, the combination of Ho and Stumpert discloses everything claimed, as applied above (see claim 10), in addition Ho further teaches the method of claim 10 further comprising the step of maintaining a data structure defining relationships among gateways, access nodes, switches, and identity codes (see col. 7, lines 39-56; col. 9, line 57 - col. 10, line 4; col. 10, lines 14-22; Figs. 2, 4, 5A-B, 7, 8), where the data structure of the addressing table defines the connections and routes used between the network.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Ho et al. (US 6,553,227) discloses *Distributed Signaling Message Routing In a Scalable Wireless Communication System*.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (703) 305-8636. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-3180.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-5424.

WJD,JR/wjd,jr
09 January 2004


CHARLES APPIAH
PRIMARY EXAMINER